

CHAPTER 5 LAND SURVEYING LICENSURE

[Prior to 11/14/01, see 193C—1.4(542B)]

193C—5.1(542B) Requirements for licensure by examination. The specific requirements for initial licensing in Iowa are established in Iowa Code section 542B.14, and it is the board's intention to issue initial licensure only when those requirements are satisfied chronologically as set forth in the statute.

5.1(1) First, the applicant for initial licensure in Iowa must satisfy the education plus experience requirements as follows: graduation from a course of two years or more in mathematics, physical sciences, mapping and surveying, or engineering in a school or college and six years of practical experience, all of which, in the opinion of the board, will properly prepare the applicant for the examination in fundamental land surveying subjects.

5.1(2) Second, the applicant must successfully complete the Fundamentals of Land Surveying examination.

a. The applicant may take the Fundamentals of Land Surveying examination anytime after the education and experience requirements described above are completed, but the applicant must successfully complete the Fundamentals of Land Surveying examination prior to taking the Principles and Practice of Land Surveying examination.

b. College seniors studying an Accreditation Board of Engineering and Technology (ABET) or Canadian Engineering Accreditation Board (CEAB) approved curriculum may take the Fundamentals of Land Surveying examination during the final academic year; applicants will be permitted to take the examination during the testing period which most closely precedes anticipated graduation. However, an official transcript from the applicant's college or university verifying that the applicant graduated must be sent by the registrar to the board office before an applicant's examination results will be released.

5.1(3) Third, the applicant must successfully complete the Principles and Practice of Land Surveying examination.

a. To qualify to take this examination, the applicant must present a record of four years or more of practical experience in land surveying work which is of a character satisfactory to the board. This experience must have been obtained after the receipt of the qualifying education and prior to the application due date for the examination. This practical experience is in addition to the initial experience required prior to taking the Fundamentals of Land Surveying examination.

b. An applicant for the Principles and Practice of Land Surveying examination shall have a minimum of one year of practical experience in the United States of America or a territory under its jurisdiction.

5.1(4) Work project description. An applicant for initial licensure as a professional land surveyor must include with the application a statement of approximately 200 words describing a significant project on which the applicant worked closely during the last 12 months. The statement shall describe the applicant's degree of responsibility for the project and shall identify the project's owner and its location. The statement shall be signed and dated. Criteria the board shall use in evaluating the acceptability of the project as qualifying experience for the applicant shall include, but not be limited to, the following:

a. The degree to which the project and the experience described has progressed from assignments typical of initial assignments to those more nearly expected of a licensed professional;

b. The scope and quality of the professional tutelage experienced by the applicant;

c. The technical decisions required of the applicant in the project; and

d. The professional decisions required of the applicant.

The board reserves the right to contact the employer and the person providing tutelage on the project for information about the project experience presented to the applicant.

5.1(5) References. References are required for any applicant that must meet an experience requirement prior to taking an examination.

a. An applicant for the Principles and Practice of Land Surveying examination shall submit five references on forms provided by the board.

(1) At least three of the five references shall be from licensed professional land surveyors.

(2) If the applicant has had more than one supervisor, at least two of the references shall be from a supervisor of the applicant.

(3) If an applicant has had professional experience under more than one employer, the applicant shall provide references from individuals with knowledge of the work performed under a minimum of two employers.

(4) The board reserves the right to contact employers for information about the applicant's professional experience and competence or to request additional references.

b. An applicant for the Fundamentals of Land Surveying examination must provide three references on forms provided by the board except that: (1) individuals applying with an ABET/EAC or CEAB accredited engineering or surveying and mapping degree with at least six semester hours of surveying or mapping do not have an experience requirement and, therefore, do not need to provide references; and (2) individuals applying with a non-ABET/EAC four-year surveying and mapping degree must submit only one reference.

5.1(6) Education and experience requirements. The board will require the minimum number of years set forth on the following chart before an applicant will be permitted to take either the Fundamentals of Land Surveying or the Principles and Practice of Land Surveying examination. Column 1 indicates the years of practical experience required prior to the Fundamentals of Land Surveying examination in addition to the completion of the required educational level. To determine the total years of practical experience required prior to taking the Principles and Practice of Land Surveying examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR EXAMINATION APPLICANTS		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Land Surveying examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Land Surveying examination:
A college or technology program with fewer than 6 semester hours of surveying		
Two-year degree	6	4
Four-year degree	4	4
A college or technology program with 6 or more semester hours of surveying		
Two-year degree	6	4
Four-year degree	2	4
Engineering program and 6 semester hours of surveying		
Two-year degree	6	4
Four-year BS degree	0	4
Engineering program with fewer than 6 semester hours of surveying		
Two-year degree	6	4
Four-year BS degree	2	4
Nonaccredited surveying and mapping program		
Two-year degree	6	4
Four-year BS degree	1	4
Accredited surveying and mapping program		
Two-year degree	6	4
Four-year BS degree	0	4

5.1(7) Practical experience requirements. Practical land surveying experience is required prior to licensing. The purpose of this requirement is to ensure that the applicant has acquired the professional judgment, capacity and competence to determine land boundaries. The following criteria will be considered by the board in determining whether an applicant's experience satisfies the statutory requirements.

a. Quality. Experience shall be of such quality as to demonstrate that the applicant has developed technical skill and initiative in the correct application of surveying principles. Such experience should demonstrate the capacity to review the applications of these principles by others and to assume responsibility for surveying work of a professional character. Up to three years of practical experience obtained after high school graduation and prior to satisfying the education requirement, if under the tutelage of a professional land surveyor, may be accepted toward the additional experience requirement for qualification to take the Fundamentals of Land Surveying examination. A minimum of four years of an applicant's experience after satisfying the education requirement shall be under the tutelage of a professional land surveyor.

b. Scope. Experience shall be of sufficient breadth and scope to ensure that the applicant has attained reasonably well-rounded professional competence in land surveying.

c. Progression. The record of experience shall indicate successive and continued progress from initial work of simpler character to recent work of greater complexity and higher degree of responsibility, as well as continued interest and effort on the part of the applicant toward further professional development and advancement.

d. Advanced education and military experience. An applicant's advanced education, military experience, or both will be reviewed in order to determine if they are applicable toward the statutory requirements for experience.

e. Joint applications. Applicants requesting licensure both as professional engineers and land surveyors must submit a history of professional experience in both fields. Such histories will be considered separately on a case-by-case basis. The board does not grant full credit for concurrent experience in both professions.

5.1(8) Required examinations. The board prepares and grades the Iowa State Specific Land Surveying examination administered to professional land surveyor candidates. All other examinations are uniform examinations prepared and graded by the National Council of Examiners for Engineering and Surveying (NCEES). The board may negotiate an agreement with an examination service to administer the examinations to applicants approved by the board, in which case applicants shall pay examination fees directly to the service.

a. Fundamentals examination. The Fundamentals of Land Surveying examination is a written, eight-hour examination covering general surveying principles.

b. Interview. One or more of the land surveyor members of the board must conduct an interview with each applicant for the professional land surveying examination prior to the examination. This interview is to verify the applicant's knowledge and experience in the principles and practice of land surveying in Iowa. The applicant is required to bring to the oral interview samples of the applicant's work which include surveying plats, subdivision plats, acquisition plats, corner certificates, and related field notes. The applicant is expected to have knowledge in the following: conduct of original surveys, restoration of obliterated corners, reestablishing of lost corners, retracement work and how to use evidence in restoration of obliterated land lines as well as corners, laws governing riparian rights, accretions, adverse possession, acquiescence, and Iowa laws regarding minimum standards for surveying, platting and corner certification. An applicant will not be permitted to write the examination without successfully verifying experience through the interview process.

c. Professional land surveying examinations. The Principles and Practice of Land Surveying examination consists of two examinations. The first is a six-hour examination designed to determine general proficiency and qualification to engage in the practice of land surveying. The second part is a two-hour Iowa State Specific closed-book examination that is designed to determine an applicant's proficiency and qualification to practice land surveying specifically in Iowa. Each of the two examinations shall be scored separately.

d. Passing scores. The board reviews test results for each examination and determines what level shall constitute a minimum passing score for that examination. In making its determination, the board generally is guided by the passing score recommended by the NCEES. The board fixes the passing score for each examination at a level which it concludes is a reasonable indication of minimally acceptable professional competence.

e. Reexamination. An applicant who fails an examination may request reexamination at the next examination period without reapplication.

(1) If the applicant intends to retake the examination, the applicant must notify the examination service selected by the board to administer the examinations prior to the application due date for the examination.

(2) Applicants failing one or both parts of the professional land surveying examination will be required to retake only the failed portions. An applicant successful in passing one portion of the land surveying examination need not be reexamined for that portion regardless of how much time elapses between the successfully passed portion and any future appearance to retake the failed portion of the examination. A satisfactory score must be obtained on each portion of the examination before the board will grant licensure as a land surveyor.

(3) An applicant for licensure as a land surveyor in Iowa (by comity or examination) that needs to be examined only for the state-specific portion of the professional land surveying examination may take the examination at the board office by appointment in accordance with all other requirements.

f. Failure to appear. An applicant who fails to appear for an examination may sit for the examination the next time it is offered without reapplication provided the application will not be more than one year old at the time of the application due date for the examination and the applicant notifies the board office prior to the application due date for the examination.

g. Materials permitted in examination room. For security reasons, applicants shall comply with requirements regarding materials permitted in the examination room as issued by the National Council of Examiners for Engineering and Surveying and provided to candidates prior to the examination.

193C—5.2(542B) Requirements for licensure by comity. A person holding a certificate of licensure to engage in the practice of land surveying issued by a proper authority of a jurisdiction or possession of the United States, the District of Columbia, or any foreign country, based on requirements that do not conflict with the provisions of Iowa Code section 542B.14 and of a standard not lower than that specified in the applicable licensure Act in effect in this jurisdiction at the time such certificate was issued may, upon application and successful completion of the Iowa State Specific Land Surveying examination, be licensed without further examination. When determining whether the licensing standards satisfied by a comity applicant at time of foreign licensure are equal or superior to those required in Iowa, the board considers each of the four licensing prerequisites in Iowa Code section 542B.14(1) individually. The licensing standards satisfied by the comity applicant must accordingly have been equal or superior to those required in Iowa for education, fundamentals examination, experience, and professional examination. Unless expressly stated in this chapter, the board will not consider an applicant's superior satisfaction of one licensing prerequisite, such as a higher level of education than is required in Iowa, as resolving an applicant's lack of compliance with another prerequisite, such as professional examination. Comity applicants are governed by the same standards as are required of Iowa applicants.

5.2(1) References. An applicant for licensure by comity shall submit three references on forms provided by the board, at least two of which shall be from licensed professional land surveyors. The board reserves the right to contact employers for information about the applicant's professional experience and competence.

5.2(2) Basis for evaluation of applications. Applications for licensure by comity will be evaluated on the following basis:

a. The applicant's record of education, references, practical experience, and successful completion of approved examinations will be reviewed to determine if it currently satisfies the substantive requirements of Iowa Code section 542B.14. In reviewing the education, references, and practical experience of comity applicants, the board will use the same criteria used by the board to determine the eligibility of a candidate for the Principles and Practice of Land Surveying examination; or

b. The applicant's licensure in a jurisdiction other than Iowa will be reviewed to determine if it was granted only after satisfaction of requirements equal to or more stringent than those that were required by Iowa Code section 542B.14 at the time the applicant was licensed in the other jurisdiction.

5.2(3) *Evaluation of comity application process.*

a. First, the applicant for licensure by comity from a jurisdiction other than Iowa must have satisfied the education and experience requirements as set forth in Iowa Code section 542B.14 that were in effect at the time that the applicant was licensed initially.

b. Second, the applicant must have successfully completed the Fundamentals of Land Surveying examination. The applicant may take the Fundamentals of Land Surveying examination anytime after the practical experience and educational requirements are completed, but the applicant must successfully complete the Fundamentals of Land Surveying examination prior to taking the Principles and Practice of Land Surveying examination.

c. Third, the applicant must have successfully completed the Principles and Practice of Land Surveying examination. Prior to taking this examination, the applicant shall have had a record of four years or more of practical experience in land surveying which is of a character satisfactory to the board.

d. While the board will consider evidence presented by a comity applicant on non-NCEES examinations successfully completed in a foreign country, the non-NCEES examination will be compared with the appropriate NCEES examination. A non-NCEES professional examination, for instance, must be designed to determine whether a candidate is minimally competent to practice professional land surveying. The examination must be written, objectively graded, verifiable, and developed and validated in accordance with the testing standards of the American Psychological Association or equivalent testing standards. Free-form essays and oral interviews, while valuable for certain purposes, are not equal or superior to NCEES examinations for reasons including the subjective nature of such procedures, lack of verifiable grading standards, and heightened risk of inconsistent treatment.

5.2(4) Education and experience requirements. The board will employ the following chart to determine if the applicant's licensure in a jurisdiction other than Iowa was granted after satisfaction of requirements equal to or more stringent than those that were required by Iowa Code section 542B.14 at the time the applicant was licensed in the other jurisdiction. Column 1 indicates the years of practical experience that were required prior to the Fundamentals of Land Surveying examination in addition to the completion of the required educational level. To determine the total years of practical experience that were required prior to taking the Principles and Practice of Land Surveying examination, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS FOR COMITY APPLICANTS Who were licensed prior to July 1, 1988		
If the applicant's educational level was:	The applicant must have had the following additional years of experience prior to taking the Fundamentals of Land Surveying examination:	The applicant must have had the following years of experience after receipt of the qualifying degree and prior to taking the Principles and Practice of Land Surveying examination:
No post-high school education	8	4
College or technology program with fewer than 6 semester hours of surveying		
One year	7	4
Two years	6	4
Three years	5	4
Four-year degree	4	4
College or technology program with 6 or more semester hours of surveying		
One year	7	4
Two years	5.5	4
Three years	4	4
Four-year degree	2.5	4
Engineering program with 6 semester hours of surveying		
One year	7	4
Two years	5.5	4
Three years	4	4
Four-year BS degree	1.5	4
Nonaccredited surveying and mapping program		
One year	7	4
Two years	5	4
Three years	3	4
Four-year BS degree	1	4
Accredited surveying and mapping program		
One year	7	4
Two years	4	4
Three years	2	4
Four-year BS degree	0	4

These rules are intended to implement Iowa Code sections 542B.2, 542B.13, 542B.14, 542B.15 and 542B.20.

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